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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named  
Inventor : Alexander V. Kuznetsov et al.

Appln. No. : 10/767,831

Filed : January 29, 2004

For : METHOD AND APPARATUS FOR CODED  
SYMBOL STUFFING IN RECORDING  
SYSTEMS

Docket No.: S01.12-1012

Group Art Unit:

Examiner:

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

I HEREBY CERTIFY THAT THIS PAPER IS BEING  
SENT BY U.S. MAIL, FIRST CLASS, TO THE  
COMMISSIONER FOR PATENTS, P.O. BOX 1450,  
ALEXANDRIA, VA 22313-1450, THIS

29 DAY OF May, 2004  
  
PATENT ATTORNEY

Sir:

The patents or publications listed on the enclosed PTO Form-1449 are submitted pursuant to 37 C.F.R. § 1.97. Copies of the patents or publications cited are enclosed.

**TIME OF FILING**

The information disclosure statement is being filed:

1.   X   with the application or within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. In accordance with 37 C.F.R. § 1.97(b), no statement or fee is required.
2.        after the time period specified in paragraph 1 above, but before the mailing date of a final action under 37 C.F.R. § 1.113 or notice of allowance under 37 C.F.R. § 1.311. Therefore, in accordance with 37 C.F.R. § 1.97(c), submitted herewith is:

(check either A or B below)

- A.        a statement as specified in 37 C.F.R. § 1.97(e).
- B.        the fee set forth in 37 C.F.R. § 1.17(p) for

submission of an information disclosure statement under 37 C.F.R. § 1.97(c).

3. \_\_\_\_\_ after the mailing date of either a final action under 37 C.F.R. § 1.113 or a notice of allowance under 37 C.F.R. § 1.311, whichever occurs first, but before payment of the issue fee. Therefore, Applicant petitions for consideration and submits herewith:
- A. a statement as specified in 37 C.F.R. § 1.97(e);
  - B. the petition fee set forth in 37 C.F.R. § 1.17(p).

**STATEMENT**

(only used if No. 2(A) or No. 3 above is checked)

The person(s) signing below certify

(check appropriate paragraph)

\_\_\_\_\_ that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement. 37 C.F.R. § 1.97(e)(1).

OR

\_\_\_\_\_ that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this statement. 37 C.F.R. § 1.97(e)(2).

**METHOD OF PAYMENT**

  X   No fee is required.

       Attached is a check in the amount of \$       .

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123. A duplicate copy of this communication is enclosed.

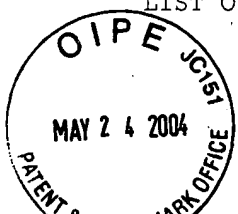
Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

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RMR/JKC/rkp

FORM PTO-1449	Atty. Docket No.: S01.12-1012	Appl. No.: 10/767,831
 <p>LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT</p>	First Named Inventor:	
	Alexander V. Kuznetsov et al.	
	Filing Date	Group Art:
	January 29, 2004	---

## U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
AA						
AB						

## FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
AC						
AD						

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AE	Phillips, A.; and Tomizuka, M.; "Multirate Estimation and Control Under Time-Varying Data Sampling with Applications to Information Storage Devices." Proceedings of the American Control Conference, Seattle WA, pp. 4151-4155 (June 1995).
AF	Yamaguchi, K.; and Imai, H.; "Good $k/(k+1)$ Time-Varying Convolutional Encoders from Time-Invariant Convolutional Codes," 1995 IEEE International Symposium on Information Theory, 1995 Proceedings, pp. 159 (September 17-22, 1995).
AG	Palazzo, Jr. R. "A Time-Varying Convolutional Encoder Better Than the Best Time-Invariant Encoder". IEEE on Information Theory, vol. 39, No. 3, pp. 1109-1110 (May 1993).
AH	B.H. Marcus et al. "Finite-State Modulation Codes for Data Storage." IEEE Journal on Selected Areas in Communications, vol. 10, No. 1, pp. 5-37, (January 1992).
AI	Vucetic, B. "An Adaptive Coding Scheme for Time-Varying Channels." IEEE Transactions on Communications, vol. 39, No. 5, pp. 653-663 (May 1991).
AJ	C. D. Heegard et al. "Variable-Length State Splitting with Applications to Average Runlength-Constrained (ARC) Codes," IEEE Transactions on Information Theory, vol. 37, No. 3, pp. 759-777 (May 1991).
AK	Gubner, J.A.; and Hughes, B.L.; "Nonconvexity of the Capacity Region of the Multiple-Access Arbitrarily Varying Channel Subject to Constraints." IEEE Transactions on Information Theory, vol. 41, no. 1, pp. 3-13, (January 1995).

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 2 of 2

FORM PTO-1449	Atty. Docket No.: S01.12-1012	Appl. No.: 10/767,831
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U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
AL						

FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
AM						

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AN	Perez, L.C. "Time Varying Convolutional Codes Revisited," IEEE Information Theory Workshop, pp. 67-69 (September 2-7, 2001).
AO	Ashley, J.; and Marcus, B.; "Time-Varying Encoders for Constrained Systems: An Approach to Limiting Error Propagation," IEEE Transactions on Information Theory, vol. 46, No. 3, pp. 1038-1043 (May 2000).
AP	Ashley, J.; and Marcus, B.; "A Generalized State-Splitting Algorithm," IEEE Transactions on Information Theory, vol. 43, No. 4, pp. 1326-1338 (July 1997).
AQ	R. Adler et al. "State Splitting for Variable-Length Graphs," IEEE Transactions on Information Theory, vol. IT-32, No. 1, pp. 108-113 (Jan. 1986).
AR	C. Shalizi et al. "Pattern Discovery in Time Series, Part I: Theory, Algorithm, Analysis, and Convergence." Journal of Machine Learning Research, pp. 1-22 (July 2002).
AS	Monsen, P. "MMSE Equalization of Interference on Fading Diversity Channels," IEEE Transactions on Communications, vol. Com-32, No. 1, pp. 5-12 (January 1984).
AT	J. Coker et al. "Noise-Predictive Maximum Likelihood (NPML) Detection," IEEE Storage Systems Division, IEEE Transactions on Magnetics, vol. 34, No. 1, pp. 110-117 (January 1998).
AU	Moon, J.; and Park, J.; "Pattern-Dependent Noise Prediction in Signal-Dependent Noise," IEEE Journal on Selected Areas in Communications, vol. 19, No. 4, pgs. 730-743 (April 2001).
AV	Kavcic, A.; and Moura, J.; "The Viterbi Algorithm and Markov Noise Memory," IEEE Transactions on Information Theory, vol. 46, no. 1, pp. 291-301 (January 2000).

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U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
AW						

FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
AX						

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AY	P. CharnKeitKong et al. "On Classes of Rate $k/(k+1)$ Convolutional Codes and Their Decoding Techniques," IEEE Transactions on Information Theory, vol. 42, no. 6, pp. 2181-2193 (November 1996).
AZ	
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